



Evaluation #

200508-O Revised
(Replaces 980101-O)

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2658
Madison, WI 53701-2658

Wisconsin Building Products Evaluation

Material

Form-A-Drain®
Footing Form and Foundation Drainage System

Manufacturer

CertainTeed Corporation Pipe and Plastic Group
750 Swedesford Road
P.O. Box 860
Valley Forge, PA 19482

SCOPE OF EVALUATION

GENERAL: The Form-A-Drain® footing and foundation drainage system, manufactured by CertainTeed Corporation has been evaluated for use as a footing form and foundation drainage system.

Comm requirements below in accordance with the current **Wisconsin Uniform Dwelling Code for 1 & 2 family dwellings:**

- **Footings:** The Form-A-Drain® footing and foundation drainage system was evaluated in accordance with s. **COMM 21.15.**
- **Drain Tiles:** The Form-A-Drain® footing and foundation drainage system was evaluated in accordance with s. **COMM 21.17.**

The **IBC** requirements below in accordance with the current **Wisconsin Amended IBC Code:**

- **Footings and Foundations:** The Form-A-Drain® footing and foundation drainage system was evaluated in accordance with the general requirements of s. **IBC 1805.1.**
- **Concrete Footings:** The Form-A-Drain® footing and foundation drainage system was evaluated in accordance with s. **IBC 1805.4.2.**
- **Foundation Drain:** The Form-A-Drain® footing and foundation drainage system was evaluated in accordance with s. **IBC 1806.4.2.**

DESCRIPTION AND USE

Form-A-Drain® is manufactured from PVC (Polyvinyl Chloride) material, in 12-foot lengths. Dimensional sizes available are 2-1/4" x 4", 2-1/4" x 6", 2-1/4" x 8" and 1-1/2" x 10". Accessories and fittings include couplings, 45° and 90° corners, vertical 90° angle pieces for stepped foundations, single and double drain outlets, steel grade stakes, steel spacer/spreader straps, and 2-inch PVC crossover pipe. Spacer straps insure equidistant form setup.

The system provides drainage for both the inside and outside walls with an integrated and hard-connected drainage network. The interconnected system provides for the free flow of water from one side of the system to the other. Whether the drain outlet is directed to a pump pit inside the foundation, to a daylight drain outside of the foundation, or to both a sump and an outside outlet, all the water from both sides of the foundation flows through a single system to the outlet.

TESTS AND RESULTS

PVC used in the Form-A-Drain® footing and foundation drainage system is in accordance with ASTM D4216, a general standard for all PVC building material. Test results are on file with the department.

LIMITATIONS OF APPROVAL

The **Wisconsin Administrative Code** limitations below in accordance with the current **Wisconsin Uniform Dwelling Code for 1 & 2 family dwellings**:

- **Footings:** The Form-A-Drain® footing and foundation drainage system is approved for use as a footing form when installed in accordance with **s. COMM 21.15**, and in accordance with the manufacturer's installation instructions.
- **Drain Tiles:** The Form-A-Drain® footing and foundation drainage system used as a foundation drainage system is approved for use in accordance with **s. COMM 21.17 (2)(c), (3)(c) and (e)**.

The Form-A-Drain® footing and foundation drainage system shall be installed in accordance with **ss. COMM 21.17(3)(d)4., 21.17(3)(d)5., and 21.17(3)(d)6.**, as noted below:

- a) In lieu of **s. COMM 21.17 (3)(d)4.**: The drain tile shall be covered with at least 12 inches of washed rock which meets the following criteria: 1) 90% – 100% of rock must pass a ¾-inch sieve; and 2) 20% - 25% of rock must pass a 3/8-inch sieve.
- b) Section **COMM 21.17(3)(d)5.**: Crossovers (bleeders) shall be provided to connect the exterior footing drain tile to the interior footing tile. The Form-A-Drain® footing and foundation drainage system does not have a 3-inch connector as prescribed by the code, **therefore**, a minimum of (4) 2-inch crossovers or (4) 4-inch crossovers shall be placed in the form-a-drain footing at approximately equal distance from each other around the entire footing. This applies to footings up to 300 feet in length. Footings greater than 300 feet in length require a minimum of (1) additional 2-inch or 4-inch crossover for each additional 75 feet of footer length. In all cases, the crossovers shall be placed at approximately equal distance apart around the entire footing. This allowance for a lower ratio of bleeder area to length of tile is due to the fact that the Form-A-Drain® footing and foundation drainage system uses a low resistance connector between the bleeder pipe and the Form-A-Drain sections as opposed to the code permitted butt connection.
- c) In **s. COMM 21.17 (3)(d)6.**: The drain tiles or pipe which lead from the footing tiles to the sump pit shall be connected to a 4-inch Form-A-Drain® outlet fitting and laid at a grade of not less than 1/8-inch per foot leading to the sump pit. The remaining drain tiles shall be installed level.

Four-inch crossovers and 4-inch outlets to sumps are to be constructed using 4-inch corrugated drain tile and **MUST** be connected to the Form-A-Drain® by the 4-inch outlet fittings supplied by the manufacturer. No other connection method is acceptable. Two-inch crossovers shall be installed using a 2-inch PVC pipe or an approved 2-inch drain tile connector. Refer to manufacturer's installation instructions for "Crossover Drainage".

The **IBC** limitations below are in accordance with the current **Wisconsin Amended IBC Code**:

- **Footings and Foundations:** The Form-A-Drain® footing and foundation drainage system shall be installed in accordance with the general requirements of **s. IBC 1805.1**.
- **Concrete Footings:** The Form-A-Drain® footing and foundation drainage system shall be installed in accordance with **s. IBC 1805.4**.

This approval will be valid through December 31, 2010, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved

under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date: June 5, 2008

Approval Date: July 13, 2005 By: _____

Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau

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